

Attorney's Docket No.: 07977/017002/US2968C1D1

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

All pending claims stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by the '000 patent to Zhang. This contention has been obviated with respect to some claims, and is respectfully traversed with respect to others of the claims, as explained herein.

Claims 1 and 22 have been amended to obviate the rejection based on Zhang. The amendments to claims 1 and 22 recite that a dopant impurity is introduced by an ion doping operation without mass separation. The ion doping as now claimed is performed by introducing a dopant gas into a plasma source, and then doping an impurity into a crystalline semiconductor film. In contrast, Zhang, et al. do not clearly disclose using such a plasma source during a doping operation. Furthermore, Zhang would appear to disclose that the ion doping is performed by an ion implantation method that is carried out by using mass separation. In view of the above, it is respectfully suggested that the present amendment obviates the rejection based on Zhang.

The rejection of claims 43 and 52 are respectfully traversed. Applicants disagree with the basic rejection, on the basis that Zhang does not appear to disclose doping an impurity into a portion which becomes the channel region. The rejection

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of claims 65 and 74 are also respectfully traversed because Zhang does not disclose removing an insulating film on a crystalline semiconductor film to which the dopant impurity has been introduced. For these reasons, it is respectfully suggested that the rejections regarding these claims are incorrect and should be withdrawn.

The remaining claims should be allowable by virtue of their dependence on the respective independent claims.

In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

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Respectfully submitted,

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VERSION TO SHOW CHANGES MADEIn the Claims:

The claims have been amended as follows.

1. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film on an insulating surface;

forming an insulating film on said crystalline semiconductor film;

introducing a dopant impurity into said crystalline semiconductor film through said insulating film by an ion doping without mass separation; and

annealing said crystalline semiconductor film,

wherein a peak of a concentration profile of said dopant impurity is located in said insulating film.

22. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film on an insulating surface;